

January 10, 1980

Mr. Robert A. Bingham
IRECO Chemicals
Kennecott Bldg., Seventh Floor
Salt Lake City, Utah 84133

Dear Mr. Bingham:

Your letter dated September 9, 1980 concerning the applicability of 40 CFR Part 261.5 to the waste stream designed as K047 (pink/red water from TNT operations) has been brought to my attention. I would like to comment on the issues raised in your letter and answer your question concerning §261.5.

You state that pink/red water by itself is not reactive due to the low concentrations of TNT. You further mention that only precipitated TNT or sludges containing TNT would be reactive. The Agency is aware that pink/red wastewaters by themselves may not be readily sensitive to detonation. However, pink/red water disposed of in sanitary landfills or surface impoundments will dewater over a period of time and the resultant relatively non-biodegradable bottom sludge will dry over the years. Dry TNT is reactive and has been classified as a Department of Transportation-Explosive A. Furthermore, it is uncertain at what point in time this precipitated TNT will accumulate in quantities sufficient enough to propagate detonation. Therefore, in view of the hazard posed by the wastewater and the potential for mismanagement, the Agency has listed pink/red water from TNT production as a hazardous waste. However, the Agency recommends that individual explosive plants who believe that their particular waste stream is non-hazardous should file a petition for delisting in accordance with Parts 260.20 and 260.22.

In addition, you state that the 1000 kg/month quantity limitation in Part 261.5 should apply only to TNT concentrations in pink/red water exclusive of the wash-down or process water portion of the waste. We disagree. The small quantity generator exemption was established to set a quantity of "as disposed" waste we believe could be exempt from regulatory control without posing an excessive burden to the regulated community and without presenting a substantial hazard to human health and the environment. By taking your suggested approach, a generator could produce "significant" quantities of wastes and yet be exempt from control. We believe this approach is not in the best interest of human health and the environment. Therefore, it is our belief that the total waste "as generated" at each facility must be included when determining the amount of waste subject to the 1000 kg/month quantity limitation.

I sincerely apologize for the delay in responding to your request for a written interpretation of §261.5 as it pertains to pink/red wastewater. Should you have any further questions, please feel free to contact us.

Sincerely,

John P. Lehman
Director
Hazardous & Industrial Waste Division (WH-565)

Mr. Robert A Bingham
IRECO Chemicals
Kennecott Bldg., Seventh Floor
Salt Lake City, Utah 84133

Dear Mr. Bingham:

Thank you for your request of September 9, 1980. In that request you asked that the EPA issue a Regulation Interpretation Memorandum (RIM) concerning the applicability of 40 CFR Part 261.5 to the waste stream designed as No. K047 under Part 261.32.

I have submitted your request to Mr. Gary Dietrich, Associate Deputy Assistant Administrator for Solid Waste. Mr. Dietrich is considering your request and, if appropriate, will assign a member of the Solid Waste staff to draft a RIM for this subject. Should EPA decide to issue a RIM on your specific request, please be assured that we will indicate how we intend to answer your request.

If I can be of further assistance, please let me know.

Sincerely yours,

Filomena Chau
Environmental Protection Specialist
Office of Solid Waste (WH-562)

Ireco Chemicals

9 September 1980

Office of Solid Waste (WH-562)
U. S. Environmental Protection Agency
401 M. Street S. W.
Washington, D. C. 20460

Attn.: Filomena Chau

Gentlemen:

IRECO Chemicals (IRECO) is an explosive manufacturer whose business address is contained on this letterhead.

IRECO hereby requests the issuance of an interpretive memorandum pertaining to the applicability of §261.5 to the waste stream designated as No. K047 under 261.32.

Waste stream K047 is "pink/red water from TNT operations." IRECO manufacturers boosters containing TNT, and although IRECO does not itself produce TNT, IRECO may have a "TNT operation."

The "Listing Background Document" for waste stream K047 specifies that the "pink or red coloration of the waste stream results from contamination of the water with traces of TNT (solubility of TNT in water is 1 mg/liter)."¹ Even though the solubility of TNT in water is very low, the listing document indicates that pink/red water would meet the reactivity characteristic. This is not so; the pink/red water is not by itself reactive, because the TNT concentration is so low. Only precipitated TNT or sludge containing TNT potentially would be reactive, and precipitated TNT sludges from evaporation ponds are included in the waste stream K044 (p. 637 of "Listing Background Document").

¹ The reference Solubility of Inorganic and Organic Compounds, Ed. By H. Stephen and T. Stephen, Vol. 1, part 1, Binary Systems, Pergamon Press, N. Y. (1963), No. 1445, lists the solubility of TNT in water as 130 mg/liter, but even this higher figure indicates that TNT is essentially insoluble in water.

Since it is only the TNT in the pink/red water that is reactive, and certainly not the water, the quantity limitation (1,000 kg/month) in §261.5 should apply only to the TNT and not to the pink/red water. Otherwise, the quantity limitation would be exceeded quickly by just the water. At a concentration of 0.13 g/liter, only 430 g of TNT would be present in 1,000 kg of pink/red water.

Office of Solid Waste

Page two

9 September 1980

Moreover, §261.5 (e) allows hazardous wastes subject to the 1,000 kg/month quantity limitation to be mixed with non-hazardous waste and remain subject to the quantity limitation even though the resultant mixture exceeds the quantity limitation. Thus, TNT waste that is mixed with wash-down waters thereby forming pink/red water should remain subject to the quantity limitation under §261.5 (e).

In view of the above, IRECO respectfully requests an interpretive memorandum specifying that the quantity limitations in §261.5 apply only to TNT in the pink/red water in K047 and not to the water. IRECO desires that this memorandum be issued well prior to the November 19, 1980 permit application deadline.

Sincerely,

IRECO Chemicals

Robert A. Bingham

RAB: nm

cc: Lawrence P. Gazda
Chief, Waste Management Branch,
Region VIII